

The Development of an Instrument to Assess Advocacy Intentions for School Health Education

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ABSTRACT

Background: An overlooked group for school health education advocacy training is college students enrolled in personal health courses. They will be investors and stakeholders in the quality of public education, and the health and academic success of students. **Purpose:** In this article we present the process used to develop a theory-based instrument that can help to assess changes in intentions to advocate for school health education after exposure to an advocacy training intervention conducted with college students enrolled in personal health courses. The instrument constructs were developed based on Theory of Planned Behavior (TPB). **Methods:** Researchers used a comprehensive instrument design framework, involving the Standards for Educational and Psychological Testing and four stages of pretesting to develop and test the instrument items. A confirmatory factor analysis (CFA) was used to test the relationship among ordinal items in the Likert-type instrument and the constructs in TPB, which the items were developed to measure. **Results:** Fit indices for the structural model indicated that the proposed model provided a satisfactory fit for the data. Therefore, the final instrument consists of 53 items, measuring intentions of students to engage in school health education advocacy, as a result of implementing an advocacy-training lesson. **Discussion:** This study resulted in an instrument to measure the effectiveness of an advocacy-training lesson for college students that produces valid and reliable scores. **Translation to Health Education Practice:** The instrument development processes can be replicated by practitioners when creating surveys to administer in their respective populations.

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BACKGROUND

School health educators have been encouraged to “sell” health education to community members, and to develop “health champions” in local school districts to advocate for school health education.^{1,2} To meet the requisite responsibility to advocate for school health education, strategies for advocacy-related training have been developed to prepare school health education undergraduate and graduate students.³⁻⁶ In addition to school health educators, community members, elementary and secondary students, physicians, school board members

and parents have been identified as potential advocates for school health education.^{2,7-9}

Birch, Wallen, and Chaney⁷ propose another important group for school health education advocacy training that has previously been overlooked – college students enrolled in personal health courses. Whereas no data exist, it can be safely speculated that thousands of students across the United States are enrolled in these courses each academic year. All of them will soon be members of local communities (with local school districts), and some will become parents. They will be investors and stakeholders

in the quality of public education, and the health and academic success of students.

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We believe that this group is a conveniently, untapped source for providing school health education advocacy training.

PURPOSE

This paper presents the *process* used to develop a theory-based instrument that can be used to assess changes in intentions to advocate for school health education after exposure to an advocacy-training intervention.

METHODS

The instrument development process used in this study was theory-driven, and based on prior research assessing intentions to advocate for health and health education. Whereas McCrary-Quarles and colleagues¹⁰ have developed an instrument for assessing intent to advocate after exposure to advocacy training, their instrument was developed for evaluating training that targeted health educators with a primary focus on state-level advocacy. Content and face validity were confirmed by only two individuals. No confirmation of construct validity was reported and no indication was provided of the ethnic and racial background of participants. The process used in the development of the instrument described in this article includes a thorough, literature-based, step-by-step process. The product is an instrument intended to address non-health educators' intentions to participate in local advocacy for school health education.

Ajzen and Fishbein's Theory of Planned Behavior (TPB)¹¹ asserts that "the most important determinant of behavior is behavioral intention."^{12(p70)} Constructs to determine behavioral intention, include attitude toward the behavior, subjective norm associated with the behavior, and perceived behavioral control.¹² The identified determinants of behavior in TPB provided the backdrop for item selection, modification, and construction. In addition, 12 items from the McCrary-Quarles and colleagues¹⁰ instrument (two measuring attitude, three measuring subjective norms, three measuring perceived behavioral control and four measuring intentions) for assessing intentions to participate in advocacy were

selected for inclusion in the instrument. For the context of this instrument, school health education advocacy is the behavior of interest, and is defined in terms of engagement in varying types of advocacy activities (such as writing letters/e-mails to school board members, writing editorials, meeting with decision-makers, advocating for school health education through social networks) within a six-month timeframe. The following factors were assessed to measure intentions to engage in the behavior of interest: (1) attitudes – measured by assessing students' beliefs regarding outcomes of advocating for school health education, and their evaluations of those beliefs, (2) subjective norms – measured by assessing students' personal experiences and perceptions of various individuals' influence on their motivation to advocate for school health, and (3) perceived behavioral control – measured by assessing students' perceptions of barriers or support for advocacy, and their ability to impact these control factors.

The outlined test development process¹³ was used and adapted with Dillman's¹⁴ four stages of pretesting to construct the instrument for the current study.¹⁵ To initiate the instrument development process, a thorough literature search was conducted to identify items measuring the constructs intended for this study.

Step 1 – Purpose of Instrument

The first step of educational test construction is to expand the purpose of the test and the constructs (i.e., the concepts the instrument is developed to measure) into a framework that "describes the extent of the domain, or the scope of the construct to be measured."^{13(p37)} Guided by the theoretical framework of TPB,¹¹ the overall purpose of the instrument for this study is to assess college students' intentions to engage in school health education advocacy, as a result of the implemented advocacy-training lesson. The determinants of behavioral intention (i.e., intention to advocate for school health education)—attitudes, subjective norms and perceived behavioral control—provide the framework for the instrument development process.

Step 2 – Test Specifications

Identifying the test specifications is Step 2 in the instrument design process. According to the Standards,¹³ "the test specifications delineate the format of items, tasks, or questions; the response format or conditions for responding; and the type of scoring procedures."^{13(p38)} For the current study, the item formats include Likert scale and open-ended questions. This study instrument was developed in order to establish equality of testing measures and outcomes for participants, regardless of gender, race, ethnicity, or any other characteristic.¹³

Step 3 – Development of a Pool of Items

With TPB constructs as the guiding framework, items were selected, modified, and created for the instrument. Items from McCrary-Quarles and colleagues¹⁰ instrument to assess intentions to advocate were utilized, and Dillman's Tailored Design Method¹⁴ was used to develop additional questions. The additional questions aimed to assess students' intentions to participate in certain advocacy-related activities, such as attending a local school board meeting or e-mailing a school board member or administrator regarding school health education. The final pool of items consisted of 53 items, including eight demographic questions.

Step 4 – Dillman's Four Stages of Pretesting

Prior to subjecting the pool of items to Dillman's four stages of pretesting,¹⁴ approval from the Institutional Review Board (IRB) at the University of Florida (UF) was sought and received. The following pretesting stages resulted in the final selection of items for the instrument and subsequent pilot test. The methods and results of the four pretesting stages are outlined below.

Stage 1: Review by knowledgeable colleagues

Methods. The compiled pool of items was reviewed by a panel of six experts, which consisted of professionals with expertise in the areas of survey development and health education advocacy. The primary goal of this stage was "to finalize the substantive content of the questionnaire so the construction process can be undertaken."^{14(p141)} The panel



was also responsible for evaluating evidence of content-related bias and any apparent issues in the instrument.

Results. Results of the panel review indicated that the chosen item formats of Likert scale and open-ended questions were appropriate for assessing the identified constructs. Additionally, modifications were made to six questions, with regard to item wording. Two items were deleted, and three were added. Reorganization of items was suggested by multiple panel members; therefore, items were grouped by construct (i.e., attitude items together, subjective norm items together) and reformatted into multiple-part questions. For example, the first nine items measured attitudes toward school health education advocacy, and were renumbered 1.a through 1.i. In addition, the panel members agreed that items appeared to measure the identified constructs, and therefore, provided strong evidence of face and content validity.

The suggested modifications by the panel members resulted in a 53-item instrument, which consisted of five multiple-part questions and eight demographic questions. Question 1 (1.a.-1.i. – 8 Likert scaled items and 1 open-ended item) assessed attitudes toward school health education advocacy. Question 2 (2.a.-2.i. – 8 Likert scaled items and 1 open-ended item) measured students' perceptions of normative beliefs regarding school health education advocacy, while Question 3 (3.a.-3.i. – 8 Likert scaled items and 1 open-ended item) assessed motivation to comply with those beliefs. Question 4 (4.a.-4.g. – 6 Likert scaled items and 1 open-ended item) measured control factor beliefs of the students, while question 5 (5.a.-5.e. – 4 Likert scaled items and 1 open-ended item) measured students' likelihood of engaging in various advocacy activities, despite identified control factors. Question 6 (6.a.-6.f.) assessed student perceptions of the effectiveness of the advocacy-training lesson in increasing awareness, interest, skills, understanding and intentions related to school health education advocacy. The final eight items were demographic questions, including the assessment of prior advocacy skills.

Stage 2: Interviews to evaluate cognitive and motivational qualities

Methods. Cognitive interviews were conducted with six undergraduate students at the University of Florida (UF). Students were recruited from an undergraduate course, offered within a Department of Health Education and Behavior. The students were asked the 53 items, individually, by an interviewer. The participants were asked to verbally respond to items, and to think out loud when responding to questions. For example, while reading the instructions out loud, respondents were asked to verbally state any thoughts that came to mind, such as "these are unclear" or "I understand what to do;" moreover, if respondents read a word they did not understand, they were advised to verbally address that thought with the interviewer. According to Dillman,¹⁴ the interviewer "probes the respondents in order to get an understanding of how each question is being interpreted and whether the intent of each question is being realized."^{14(p142)} Cognitive interviewing "is designed to produce information when the respondent is confused or cannot answer a question."^{14(p142)}

Results. Minor wording modifications to two items were made, as a result of the six cognitive interviews. No items were deleted or added and no formatting edits were suggested by respondents. Four of the six respondents noted the clarity in the instrument directions, and mentioned the importance of highlighting the purpose of the data collection tool.

Stage 3: A pilot test

Methods. The pilot test analyzed the instrument to evaluate an advocacy-training lesson designed for college students in personal health classes. In April 2010, 89 students enrolled in a personal health course at UF participated in a 50-minute advocacy-training lesson, and were administered the 53-item instrument after the activity was conducted. The class instructor used the advocacy-training lesson and supporting instructional materials, developed by Birch, Wallen, and Chaney⁷ to conduct the 50-minute lesson in the class. In addition to collecting the survey data from students, a

one-on-one interview was conducted with the instructor of the course, to gain more insight into the instructor's perspective of the advocacy-training lesson and survey administration procedures. Data collected from this first wave of pilot testing were analyzed and used to improve the second wave of pilot testing. Reliability measures and frequencies for reporting on each construct were also assessed.

Following the first wave of pilot testing in April 2010, the advocacy-training lesson and instrument were administered to two sections of a personal health course at UF in May 2010. In this pilot test phase, 195 students participated in a one group pre/posttest design, implemented to assess differences of measured constructs after the implementation of the lesson.

Construct validity has been described as "the results achieved from using the instrument predict those matters which the theory underlying the instrument's design says they should predict."^{16(p82)} For the purpose of assessing construct validity of the instrument, the first wave data ($N = 89$), collected in April 2010, and the pretest data from the second wave ($N = 195$), collected in May 2010, were combined and subjected to a Confirmatory Factor Analysis (CFA) to assess if the data fit the proposed TPB framework. The samples were combined in order to achieve a large enough sample size to run the CFA analysis, as CFA is "often referred to as large sample [technique], reflecting the fact that performance can be enhanced with larger sample size"^{17(p65)} Additionally, reliability measures to assess the consistency of scores from items in the instrument were assessed. Cronbach's coefficient alpha (α) was used to determine internal consistency reliability.

RESULTS

Wave I Results. Demographic analysis of the study sample was calculated using Predictive Analytic SoftWare (PASW) Version 18.0.¹⁸ For the first wave of the pilot test ($N = 89$), 32.6% were male, while the remaining 67.4% were female. Sixty-four percent indicated "white/Caucasian" for race, while 22.1% were black/African American, Asian



(7.0%), Native Hawaiian/Other Pacific Islander (1.2%), Other (4.7%). Approximately 23% were Hispanic American. Of the 89 students in this wave, a majority were freshman (35.2%) and sophomore students (37.5%), and 11 UF colleges were represented, with the largest percentage of students (35.6%) being housed in the College of Public Health and Health Professions.

To gain preliminary reliability measures of the scales, Cronbach's alpha (α) was assessed for the wave I pilot data, using Predictive Analytic SoftWare (PASW) Version 18.0.¹⁸ For the items measuring attitude toward advocacy (incorporating the behavioral belief and evaluation of those beliefs), the Cronbach's α was 0.813. For the subjective norms scale (including normative belief and motivation to comply items), the Cronbach's α was 0.782. Perceived behavior control items (incorporating factors that hinder or support advocacy) resulted in a Cronbach's α of 0.831, while items measuring intention to conduct various advocacy activities had a Cronbach's α of 0.866.

Wave II Results. Demographic analysis of the study sample was calculated using Predictive Analytic SoftWare (PASW) Version 18.0.¹⁸ For wave II of the pilot test ($N = 195$), 23.6% were male, while the remaining 75.8% were female. Fifty-nine percent indicated "white/Caucasian" for race, while 17.5% were black/African American, Asian (14.3%), Native Hawaiian/Other Pacific Islander (0.6%), Other (8.4). Approximately 25% were Hispanic American. A majority of the sample were freshman (36.6%) and sophomore students (38.5%), and 11 UF colleges were represented, with the largest percentage of students (21.4%) being housed in the College of Health and Human Performance. When asked how students would rate their advocacy skills prior to enrolling in the course, 45.6% rated their skills "fair" on a 4-point Likert scale (1 = excellent to 4 = poor).

Cronbach's alpha was assessed for the wave II pilot data, using Predictive Analytic SoftWare (PASW) Version 18.0.¹⁸ For the items measuring attitude toward advocacy (incorporating the behavioral belief and

evaluation of those beliefs), the Cronbach's α was 0.799. For the subjective norms scale (including normative belief and motivation to comply items), the Cronbach's α was 0.861. Perceived behavior control items (incorporating factors that hinder or support advocacy) resulted in a Cronbach's α of 0.864, while items measuring intention to conduct various advocacy activities had a Cronbach's α of 0.836.

Construct Validity Measures

A confirmatory factor analysis (CFA) was used to test the relationship among ordinal items in the Likert-type instrument and the constructs in TPB, which the items were developed to measure. For this measurement model, polychoric correlations "estimate the linear relationship between two unobserved continuous variables given only observed ordinal data", and these correlations are fit in the tested model with Robust Weighted Least Squares (WLS), which is a method for estimating model parameters using categorical or ordinal data.^{19(p467)} The measurement model was estimated using the software package, Mplus.²⁰

Robust WLS estimation requires that the distribution of ordinal data is not extremely skewed or leptokurtotic. Skewed data will result in underestimation of the standard error of the parameter estimates, which will inflate the chi-square model fit test statistic, resulting in over rejection of adequately fit models.¹⁹ No items were excluded from the CFA analysis due to non-normality. Mplus procedures accounted for missing data.

Model Specifications

The hypothesized measurement model (Model 1), created based on the constructs of the TPB, contained three factors (latent variables representing TPB constructs): Factor 1—attitude toward school health education advocacy, Factor 2—subjective norms and Factor 3—perceived behavioral control. Refer to Figure 1.

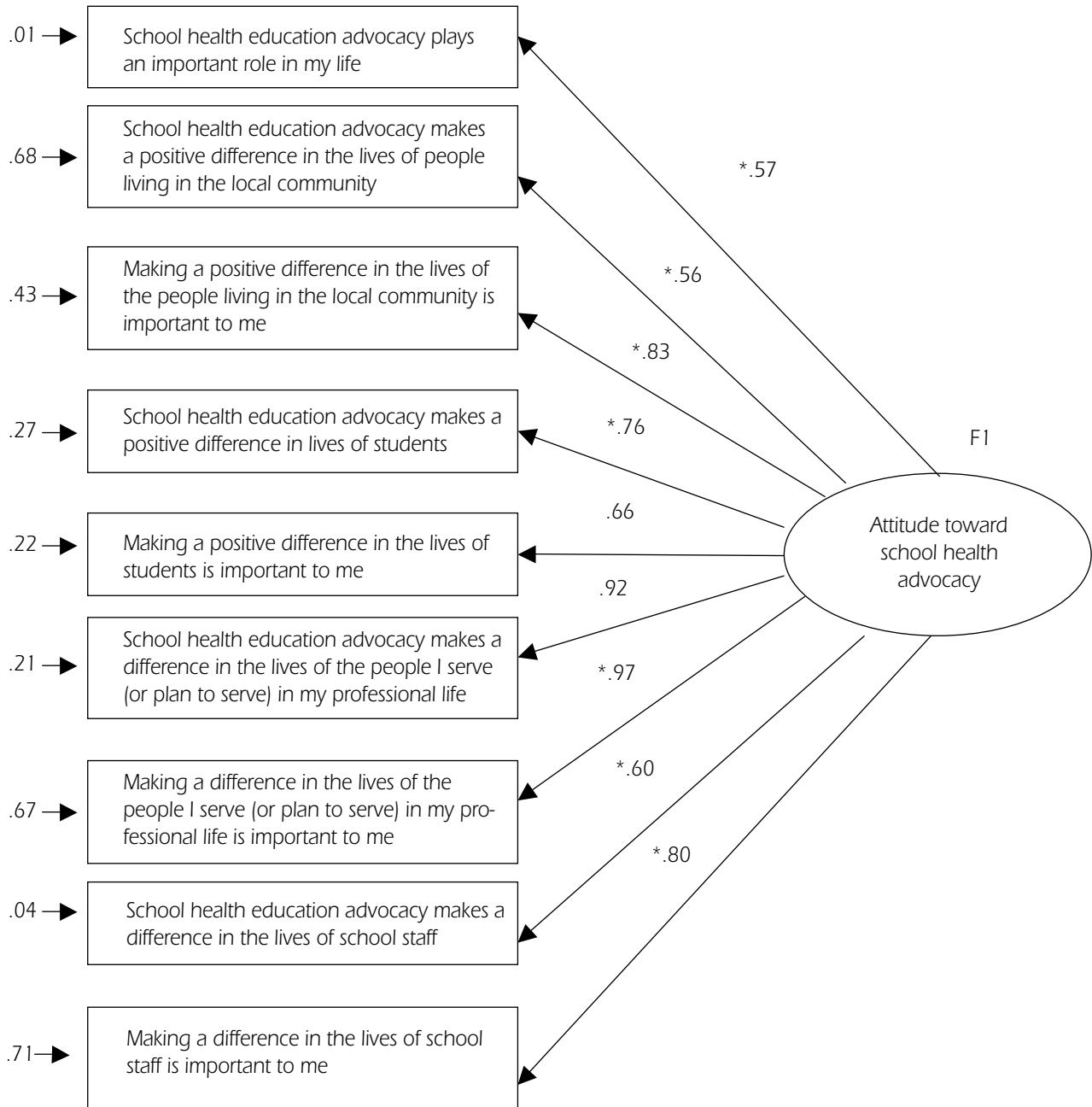
Fit indices for Model 1 indicated reasonably good fit with only the comparative fit indices. The chi-square goodness-of-fit ($X^2 = 363.308$, $df = 52$, $P < 0.001$) was statistically significant; however, other fit indices were analyzed for a better idea of model fit

and appropriateness.²¹ Bentler's²² comparative fit index (CFI) and TLI²³ were 0.9012 and 0.9711 respectively. Many researchers accept CFI and TLI fit indices greater than 0.90; therefore, the TLI index in Model 1 is acceptable.²⁴ Root Mean Square Error of Approximation (RMSEA = 0.1021) is acceptable at 0.08 and lower, while Standardized Root Mean Square Residual (SRMR = 0.052) is acceptable at 0.05 or less.²⁴ Lastly, the Weighted Root Mean Square Residual (WRMR) was calculated for acceptable rates of approximately 1.0. RMSEA (0.1021), SRMR (0.052), and WRMR (1.037) did not necessarily meet cut-off points;²⁵ therefore, subsequent model testing on a new sample would require modifications to the measurement model. However, in order to preserve the theoretical approach to this study and sample, modification specification searches were not conducted. According to Thompson,^{21(p.131)} "respecifying a CFA model based on consultation of critical ratio and modification index statistics is a dicey business, if the same sample is being used to generate these statistics and then used to test the fit of re-specified model." Additionally, "using the same sample to re-specify the model, and then test the specified model, increases capitalization on the sampling error variance and decreases the replication of results. And using the same sample in this manner also turns the analysis into an explanatory one, albeit using CFA algorithms."^{21(p131)}

Parameter estimates and standard error for parameter estimates for Model 1 are displayed in Table 5. A parameter estimate to standard error ratio (Est./S.E.) greater than +1.96 or below -1.96 indicates factor loading is statistically significant; significant path coefficients are noted in Figure 1 with asterisks. Lastly, Table 1 indicates multiple R-square output produced by the CFA analysis in Mplus. These values are calculated for continuous latent variables (underlying continuous variables that are not observed) rather than the observed variables. Multiple R-square values for ordinal or categorical outcome variables should not be interpreted as the proportion of explained variance; therefore, parameter estimates and

Figure 1. Confirmatory Factor Analysis Models

Model 1 for Factor 1 (Attitude)



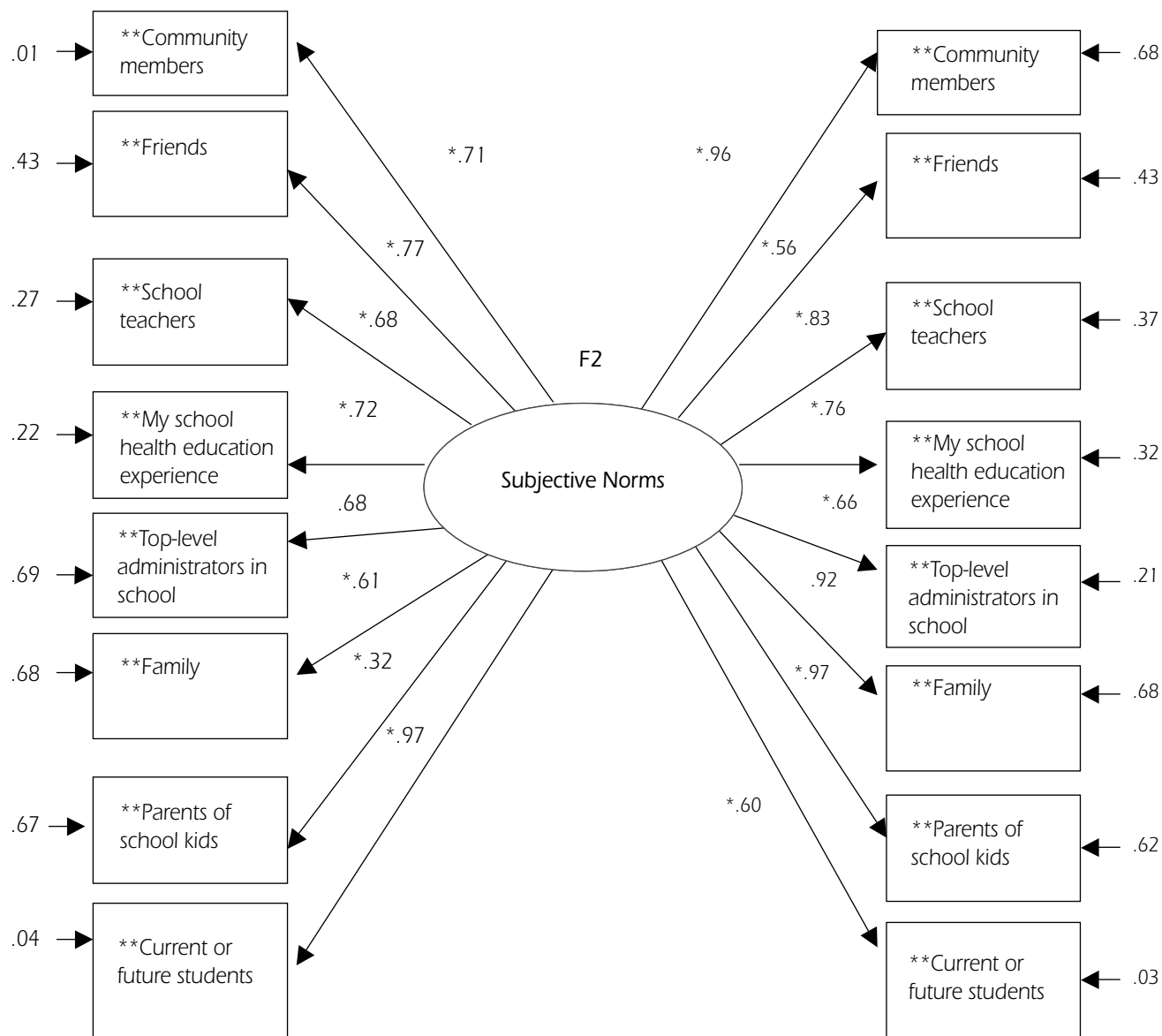
*indicates significant path coefficients ($P < 0.05$).

continued



Figure 1. Confirmatory Factor Analysis Models (con't)

Model 1 for Factor 2 (Subjective Norms)



**These item were preceded by the following directions: Please indicate the degree to which of the following entities are likely to discourage or encourage your involvement in school health education advocacy (scale: 1 = very likely to discourage to 5 = very likely to encourage).

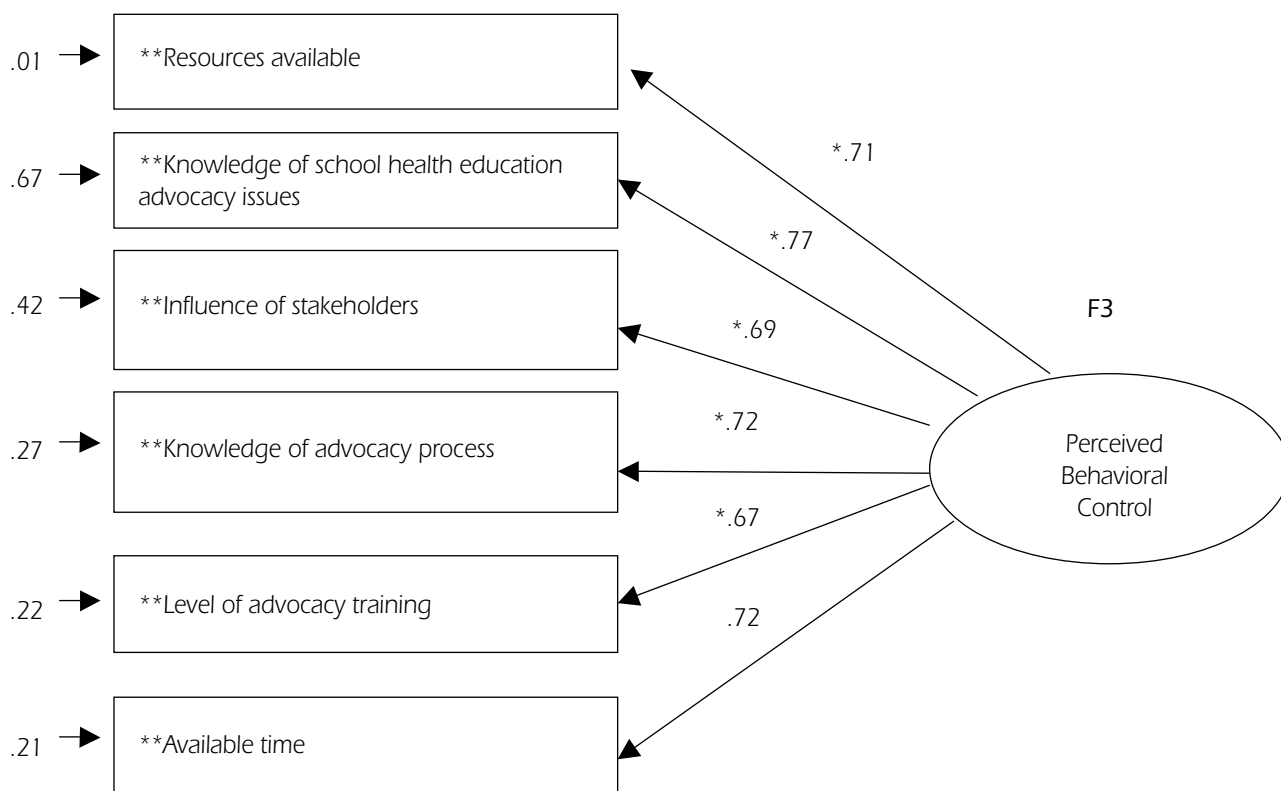
***Please indicate how likely you are to comply with the desires of each entity (scale: 1 = very unlikely to comply to 5 = very likely to comply).

*indicates significant path coefficients ($P < 0.05$).

continued

Figure 1. Confirmatory Factor Analysis Models (con't)

Model 1 for Factor 3 (Perceived Behavioral Control)



**These item were preceded by the following directions: Please indicate how much each of the following factors support or hinder your involvement in school health education advocacy (scale: 1 = very likely to hinder to 5 = very likely to support).

*indicates significant path coefficients ($P < 0.05$).

standard errors reveal more about model fit and appropriateness than the multiple R-square values.²⁶

Predictive Validity Measures

A structural model was created to test if the measurement model (Model 1) predicted students' intentions to engage in advocacy activities (Figure 2). Intentions to advocate, due to the activity, were measured by five items assessing the likelihood of students to engage in the following advocacy activities (5-point Likert scale; 1 = very unlikely to 5 = very likely): attend a school board meeting, use social network platforms for school health education advocacy, write a letter/e-mail to the editor regarding

a school health education advocacy issue, meet with a local school board member or administrator, and/or write/e-mail a legislator regarding a local school health education advocacy issue. Additionally, one general item assessed students' intentions to increase school health education advocacy, as a result of the class activity.

Fit indices for the structural model indicate that the model provides a satisfactory comparative fit indices for these data. The chi-square goodness-of-fit ($X^2 = 464.407$, $df = 84$, $P < 0.001$) was statistically significant. CFI (0.906) and TLI (0.943) are acceptable and provide evidence of good model fit. Additionally, RMSEA (0.101),

SRMR (0.062), and WRMR (1.038) were borderline acceptable, and therefore indicated that modifications should be made to subsequent model tests. It should be noted that the instability of the measurement model could account for the borderline acceptable measures here. The authors intend to retest the model, after re-specifying the model, with a new sample in subsequent testing (Figure 2). The standardized path coefficients and standard errors of the estimates are provided in Figure 2. Parameter estimate to standard error ratios for the model reveal that Factor 1 (attitudes toward advocacy), Factor 2 (subjective norms), and Factor 3 (perceived behavioral control) help



to explain intentions of students to engage in school health education advocacy, after the advocacy-training lesson.

Stage 4: A final check

In this final step of survey development, instrument developers ask outside people (who have had no part in creating the instrument) to review for any final edits.¹⁴ In the current study, two additional people were asked to review the survey for wording or content problems, and as a result, no changes were made to the instrument. Therefore, the final instrument consists of 53 items, measuring intentions of students to engage in school health education advocacy, as a result of implementing an advocacy-training lesson.

DISCUSSION

Health educators acknowledge that advocacy promoting quality school health education is a critical professional responsibility.²⁷ Individuals, beyond health education can contribute to local advocacy efforts as well.^{2,8} College students, who are future parents and community members, have been overlooked as potential advocates for school health education. This study resulted in an instrument to measure the effectiveness of an advocacy-training lesson for college students that produces reliable scores. Construct validity, through additional model testing, needs to be conducted after assessment of post-hoc modifications. However, this article provides methods for testing theoretically-based instruments, and the results will inform subsequent studies to test TPB and advocacy intentions. An instrument specifically designed to evaluate an advocacy training lesson is a critical tool for researchers interested in examining classroom advocacy activities and the impact of those activities on knowledge, intent and skill development. Additionally, to strengthen the instrument's reliability and validity it needs further use in studies with larger ethnically/racially diverse sample sizes.

Limitations

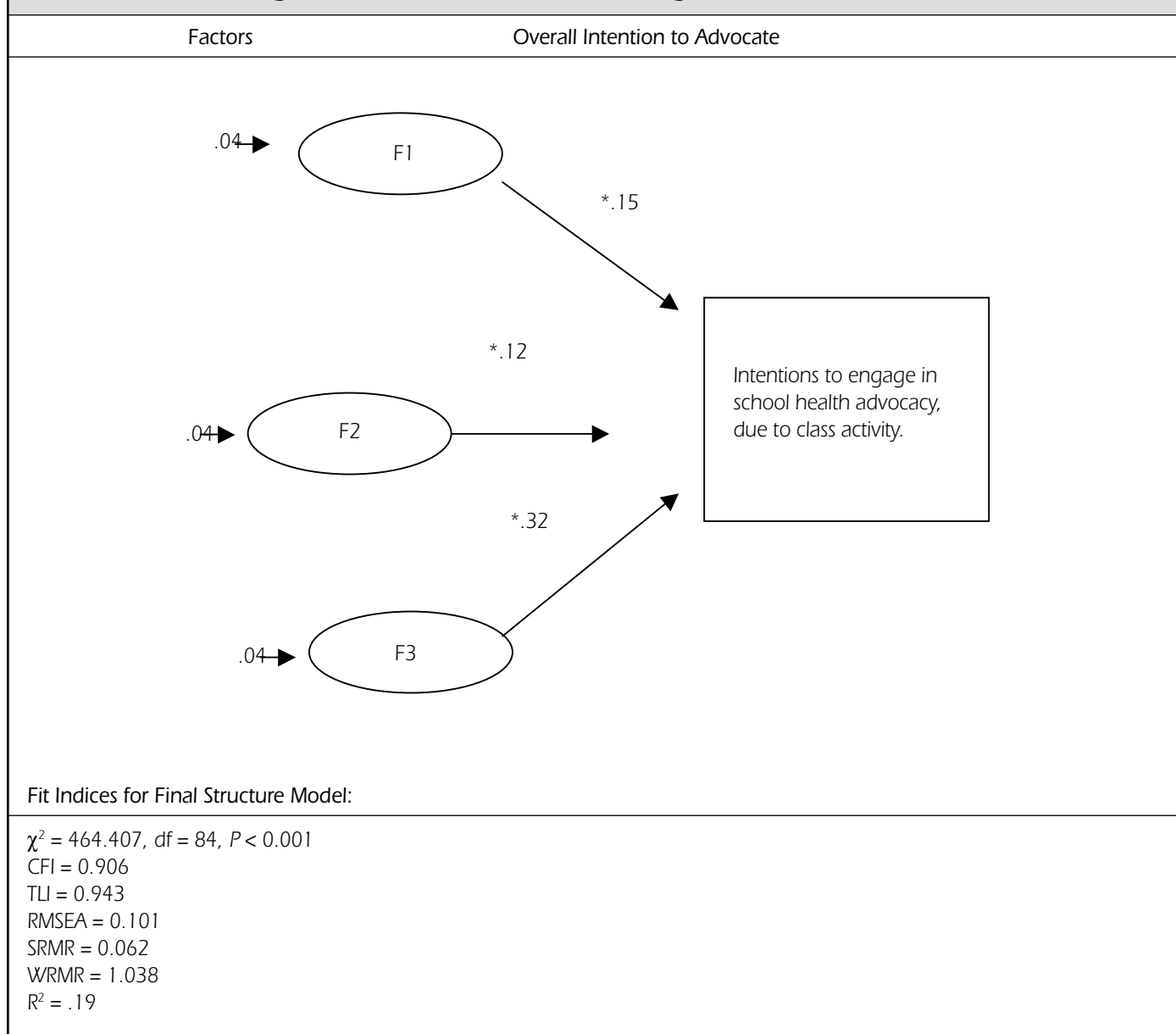
A possible limitation to this study is the combining of wave I and II pretest data, as the two data sets could reflect differing

R-square for Items	Residual Variance	R-Square
Item 1a.	0.679	0.321
Item 1b.	0.690	0.312
Item 1c.	0.315	0.689
Item 1d.	0.422	0.582
Item 1e.	0.568	0.436
Item 1f.	0.160	0.850
Item 1g.	0.055	0.943
Item 1h.	0.639	0.359
Item 1i.	0.352	0.646
Item 2a.	0.489	0.507
Item 2b.	0.403	0.593
Item 2c.	0.518	0.461
Item 2d.	0.485	0.513
Item 2e.	0.529	0.467
Item 2f.	0.629	0.373
Item 2g.	0.692	0.304
Item 2h.	0.067	0.960
Item 3a.	0.071	0.930
Item 3b.	0.688	0.310
Item 3c.	0.315	0.689
Item 3d.	0.419	0.579
Item 3e.	0.567	0.435
Item 3f.	0.151	0.847
Item 3g.	0.054	0.942
Item 3h.	0.639	0.359
Item 4a.	0.490	0.508
Item 4b.	0.404	0.594
Item 4c.	0.528	0.472
Item 4d.	0.487	0.515
Item 4e.	0.528	0.470
Item 4f.	0.485	0.513

student experiences. Additionally, it should be noted that the sample is majority white females which limits generalizability of results to students of other race/ethnicities and opposite gender. The study design is non-experimental and all the data is self-report data; therefore, researchers were unable to assess if data were biased due to socially desirable responses. Also, the class activity and surveys were administered during class times. Although participation was not mandatory or linked to class credit, 100% of students agreed to participate; the likelihood of this participation rate in the general population is low. Several threats to internal validity could interject bias with this pre-posttest design, including

testing threat and memory effect. A limited amount of time elapsed between pre- and posttest administration, which could account for any increase in intentions to engage in advocacy; however, the purpose of this study was to focus on the process of instrument development, which can be replicated by interested readers, despite this limitation.

Although Ajzen and Fishbein's TBP¹¹ asserts that behavioral intention is the most important determinant of behavior,¹² it should be noted that some studies have questioned this association in practice.²⁹ In a meta-analysis conducted by Sutton,²⁹ TBP, and the closely-related Theory of Reasoned Action (TRA) explain, "on average, between

Figure 2. Structural Model for Predicting Intentions to Advocate


40% and 50% of the variance of intention, and between 19% and 38% of the variance in behavior.^{29(p1317)} Therefore, there is room for improvement in using these models, as they exist, for predication of behavior. With that said, the use of TBP to predict intentions to engage in school health education advocacy should continue to be explored, and in subsequent studies, the authors intend to use new samples to incorporate varying model differences to analyze fit for data based on TBP constructs.

TRANSLATION INTO HEALTH EDUCATION PRACTICE

The process used to develop the theory-based instrument to assess college students' intentions to engage in school health education advocacy provides direct implications for health education practice. First, the rigorous instrument development process is one that is applicable for the development of measurement tools used in an array of settings. The framework utilized in this project can be replicated by practitioners to

ensure rigor in developing instruments for data collection. In addition, the instrument design framework provides an example of how theoretical constructs can help guide item selection and development.

Study implications also suggest that practitioners, specifically those in professional preparation programs, should consider the college student, enrolled in a personal health course, as a priority for school health education advocacy training. Tappe, Galer-Unti, and Radius²⁸ challenged individuals



within the profession to rethink how advocacy training is promoted and provided and the groups to which these trainings are offered. The approach taken with this study included the overlooked group of students enrolled in personal health courses, with varying majors and career aspirations, in a brief, one-class school health education advocacy training to test impact on intentions to advocate for school health education. The researchers urge others in the profession to consider this group as one with the potential to impact school health education through relevant advocacy initiatives, if provided adequate training.

The future of school health education will continue to rely on strong voices within and beyond the profession to effectively engage in school health education advocacy. As the need for advocacy-related training continues to grow,²⁸ studies such as this can help to provide a solid foundation for survey research to provide evaluation data to assess effectiveness of advocacy training efforts. Additionally, the methodologies used in this study can be replicated by others in developing valid and reliable tools for data collection, as well as, provide a foundation for subsequent school health education advocacy training evaluation studies.

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